

## CLAIMS

What is claimed is:

- 1    1.    A method of testing a Web Service as a component comprising the steps  
2    of:
  - 3       identifying, on a remote system, a Web Service to be tested;
  - 4       obtaining information relating to the Web Service to be tested;
  - 5       generating a program to exercise the Web Service to be tested;
  - 6       executing the program to exercise the Web Service to be tested; and
  - 7       obtaining results from the Web Service to be tested.
- 1    2.    The method of claim 1 wherein further comprising the step of verifying  
2    that said results are correct.
- 1    3.    The method of claim 1 wherein said step of identifying includes locating  
2    a Web Service descriptor language (WSDL) file for the Web Service.
- 1    4.    The method of claim 3 wherein said step of identifying further comprises  
2    locating a DISCO file, said DISCO file including a list of WSDL files.
- 1    5.    The method of claim 1 wherein said step of obtaining information relating  
2    to the Web Service to be tested includes obtaining information relating to the Web  
3    Service interface.

1    6.     The method of claim 1 wherein said step of obtaining information relating  
2    to said Web Service to be tested further comprises obtaining information related to  
3    the methods of the Web Service.

1    7.     The method of claim 1 wherein said step of obtaining information relating  
2    to said Web Service to be tested further comprises obtaining information relating  
3    to parameters to be passed to said Web Service.

1    8.     The method of claim 1 wherein said step of executing the program to  
2    exercise the Web Service to be tested includes sending and receiving messages  
3    with said Web Service.

1    9.     The method of claim 1 wherein said remote system resides on a network.

1    10.    The method of claim 9 wherein said network comprises the Internet.

1    11.    The method of claim 8 wherein said messages are in a SOAP protocol.

1    12.    The method of claim 8 wherein said messages are transported across said  
2    network using an HTTP Internet protocol.

1    13.    The method of claim 8 wherein said messages are in an XML format.

1    14.    A computer program product for testing a Web Service as a component,  
2    the computer program product comprising a computer usable medium having  
3    computer readable code thereon, including program code comprising:

4               instructions for causing a processor to identify, on a remote system,  
5    a Web Service to be tested;

6               instructions for causing the processor to obtain information relating  
7    to the Web Service to be tested;

8               instructions for causing the processor to generate a program to  
9    exercise the Web Service to be tested;

10              instructions for causing the processor to execute the program to  
11    exercise the Web Service to be tested; and

12              instructions for causing the processor to obtain results from the Web  
13    Service to be tested.

1    15.   The computer program product of claim 13 further comprising instructions  
2    for causing the processor to verify said results.

1    16.   The computer program product of claim 14 wherein said instructions for  
2    causing a processor to identify includes instructions for causing a processor to  
3    locate a Web Service descriptor language (WSDL) file for the Web Service.

1    17.         The computer program product of claim 14 wherein said  
2    instructions for causing a processor to identify further comprises instructions for  
3    causing a processor to locate a DISCO file, said DISCO file including a list of  
4    WSDL files.

1    18.         The computer program product of claim 14 wherein said  
2    instructions for causing a processor to obtain information relating to the Web  
3    Service to be tested includes instructions for causing a processor to obtain  
4    information relating to the Web Service interface.

1    19. The computer program product of claim 14 wherein said instructions for  
2    causing a processor to obtain information relating to said Web Service to be tested  
3    further comprises instructions for causing a processor to obtain information  
4    related to the methods of the Web Service.

1    20. The computer program product of claim 14 wherein said instructions for  
2    causing a processor to obtain information relating to said Web Service to be tested  
3    further comprises instructions for causing a processor to obtain information  
4    relating to parameters to be passed to said Web Service.

1    21. The computer program product of claim 14 wherein said instructions for  
2    causing a processor to execute the program to exercise the Web Service to be  
3    tested includes instructions for causing a processor to send and receive messages  
4    across a network with said Web Service.

1    22. The computer program product of claim 21 wherein said instructions for  
2    causing a processor to send and receive messages comprise instructions for  
3    causing a processor to send and receive messages using a SOAP protocol.

1    23. The computer program product of claim 21 wherein said instructions for  
2    causing a processor to send and receive messages with said Web Service  
3    comprises instructions for causing a processor to transmit said messages in an  
4    HTTP Internet protocol.

1    24. The computer program product of claim 2 wherein said instructions for  
2    causing a processor to send and receive messages with said Web Service comprise  
3    instructions for causing a processor to transmit messages in an XML format.